

1. An expression for the  $n$ th term of this sequence of even numbers is  $2n$

2      4      6      8      10

Write down

- (i) an expression, in terms of  $n$ , for the  $n$ th term of this sequence of odd numbers

1      3      5      7      9      . . . . .

- (ii) the 16th odd number

. . . . .

2. These five even numbers form an arithmetic sequence

2      4      6      8      10

- (i) Write down, in terms of  $n$ , an expression for the  $n$ th term of this sequence . . . . .

- (ii) Write down the 50th even number

. . . . .

- (iii) Write down the 50th odd number

. . . . .

sequence Arithmetic (12) Answers Q1:(i)  $2n - 1$  (ii) 31 Q2: (i)  $2n$  (ii) 100 (iii) 99

Q3: **One way:** the first odd number is 1 less than the first even number

**another way:**  $2n + 1$  is the sequence 3, 5, 7 ... not 1, 3, 5 ... Q4: (i)  $2n - 1$  (ii) 29 Q5: 36

1. An expression for the  $n$ th term of this sequence of even numbers is  $2n$

2      4      6      8      10

Write down

- (i) an expression, in terms of  $n$ , for the  $n$ th term of this sequence of odd numbers

1      3      5      7      9      . . . . .

- (ii) the 16th odd number

. . . . .

2. These five even numbers form an arithmetic sequence

2      4      6      8      10

- (i) Write down, in terms of  $n$ , an expression for the  $n$ th term of this sequence . . . . .

- (ii) Write down the 50th even number

. . . . .

- (iii) Write down the 50th odd number

. . . . .

3. Selena’s maths teacher says an expression for the  $n$ th even number is  $2n$

Selena says an expression for the  $n$ th odd number is  $2n + 1$

Is Selena correct?

You must give a reason for your answer.

.....  
.....

4. These five odd numbers form an arithmetic sequence

1      3      5      7      9

(i) Write down, in terms of  $n$ , an expression for the  $n$ th term of this sequence . . . . .

(ii) Write down the 15th odd number . . . . .

5. Write down the 18th even number.

.....

3. Selena’s maths teacher says an expression for the  $n$ th even number is  $2n$

Selena says an expression for the  $n$ th odd number is  $2n + 1$

Is Selena correct?

You must give a reason for your answer.

.....  
.....

4. These five odd numbers form an arithmetic sequence

1      3      5      7      9

(i) Write down, in terms of  $n$ , an expression for the  $n$ th term of this sequence . . . . .

(ii) Write down the 15th odd number . . . . .

5. Write down the 18th even number.

.....